

SECTION 02502 - STANDARDS OF ROADWAY CONSTRUCTION

PART 1 - GENERAL

1.1 Road construction shall conform to the following requirements and standards:

A. Streets, General

1. Streets and alleys shall be graded, surfaced, and improved to the dimensions required by the cross-sections and the work shall be performed in the manner prescribed in Section 02500 and the Indiana Department of Transportation Standard Specifications (INDOTSS).
2. Prior to placing the street and alley surfaces, adequate subsurface drainage (underdrains) for the street shall be provided by the Subdivider. Underdrain pipe shall conform to Section 02500.
3. Bituminous asphalt paving mixes shall comply with specifications contained in Section 02500.
4. Before any bond covering a street installation is released, the Westfield Public Works Department or duly authorized representative may request that core borings of the street be provided, at the Subdivider's expense, for thickness and/or compaction determination.
5. Prior to the acceptance of asphalt streets, the Subdivider shall employ and pay for the services of an independent testing laboratory to take cores at selected locations and perform Marshall stability, flow and density test, and percent of compaction determination on completed asphalt work if so directed by the WPWD or duly authorized representative.
6. Asphalt surface layer shall be placed immediately after the binder layer is installed.
7. All traffic control devices shall comply with guidelines and requirements of the current edition of the Indiana Manual on Uniform Traffic Control Devices.

B. Subgrade for Street Pavements

1. Preparation

- a. After all earth work is substantially complete and all drains installed, the subgrade shall be brought to the lines and grades shown on the plans.
- b. Unless otherwise provided, the upper six (6) inches of all subgrade shall be uniformly compacted to at least 95 percent standard density as determined by the provisions of AASHTO, T99, "Compaction and Density of Soils". During subgrade preparation and after its completion, adequate drainage shall be provided at all times to prevent water from standing on the subgrade. Subgrades shall be so constructed that it will have uniform density throughout. After compaction and final grading, the subgrade shall be finished with a three-wheel roller weighting not less than ten (10) tons. For areas not accessible to the roller, the required compaction shall be obtained by using mechanical tampers.
- c. All soft yielding or otherwise unsuitable material which will not compact properly shall be removed. All rock encountered shall either be removed or broken off to conform to required cross sections. Any holes or depressions resulting from the removal of such unsuitable material shall be filled with approved material and compacted to conform to the surrounding subgrade surface. No placement of pavement shall be permitted on uninspected or unapproved subgrade and, at no time, when the subgrade is frozen or muddy. No hauling shall be done nor equipment moved over the subgrade when its condition is such that undue distortion results. If these conditions are present, the subgrade shall be protected with adequate plank runways, mats, or other satisfactory means if hauling is to be done thereon.
- d. The subgrade shall be prepared sufficiently in advance to facilitate proper inspection of final elevations and compactions by the WPWD or duly authorized representative.
- e. All utility and drainage excavations under pavement shall be backfilled with flowable fill. Do not backfill trenches and excavations until all utilities have been inspected by the WPWD Inspector. These locations shall be illustrated on construction drawings submitted to the WDPW.

- C. Pavement Section - Typical pavement sections shall conform to the cross sections shown by Figures P-1 through P-3. The use of alternative cross sections shall be approved by the WPWD.
- D. Curbs and Gutters
 - 1. Developers shall provide curbs and gutters on each side of the street in proposed development.
 - 2. Curbs and gutters shall comply with standard details shown by Figure P-8. As an alternate, curb sections which comply with INDOTSS will be permitted upon approval of the WPWD.
 - 3. All curb and gutter sections placed on Primary Arterials, Secondary Arterials, or Collectors shall be of the barrier type. Roll-type curb and gutter sections will be permitted for Local Roads and Streets.
 - 4. Curbs and gutters shall be constructed according to Section 02500:
 - a. The minimum grade of any street gutter shall be not less than three-tenths percent (0.3%).
 - b. Inlet grates shall be heavy duty type recommended for bicycle traffic.
- E. Sidewalks within Subdivisions
 - 1. Sidewalks shall be at least six (6) inches thick at drives and at least four (4) inches thick at all other locations within the subdivision. Multi-use trails shall be at least eight (8) feet wide adjacent to Primary Arterials, Secondary Arterials, and Collectors and in commercial, industrial or multi-family developments and residential subdivision perimeters. Sidewalks shall be at least five (5) feet wide at all other locations. Sidewalks shall be concrete in accordance with Section 02500. Expansion joints shall be located every 48 feet and control joints every six (6) feet. Multi-use trails shall be asphalt.
 - 2. Curb ramps, sidewalks, and multi-use trails shall comply with the most current INDOT and ADA requirements. Ramps shall not be permitted in driveways.
 - 3. Multi-use trails shall be constructed to a minimum width of eight (8) feet with a maximum grade of five percent (5%). The trails shall be constructed of asphalt in accordance with Section 02505.

4. All sidewalks/trails shall be placed on properly prepared and compacted subgrades. Materials shall be furnished and installed in accordance with Section 02500 and INDOTSS.
 5. When sidewalks or trails cross major street intersections within or adjacent to a subdivision, necessary traffic control devices such as painted crosswalks and signs shall be installed at the subdivider's expense at the discretion of the Westfield City Council or the WPWD or designee.
 6. If not located within public rights-of-way, easements of at least ten (10) feet in width shall be provided for sidewalks, pedestrian trails, or bicycle trails.
- F. Easements - Whenever possible, easements for poles or underground conduits for electrical power, or communication lines shall be provided along rear lot lines.
- G. Plans - Construction plans for improvements to be installed shall be furnished in accordance with the specifications of the WPWD and/or, when appropriate, to the Hamilton County Highway Department. Such plans must receive all appropriate approvals before improvements are installed. Upon completion of streets and alleys improvements, as-built plans in state plane coordinates shall be filed with the WPWD after the WPWD Inspector's punchlist has been completed and when appropriate, to the proper governing body of Hamilton County. All construction plans shall include the following:
1. Horizontal geometry of each proposed street, with centerline and curb radii shown.
 2. The profile of each proposed street, with grades indicated, and lengths of vertical curves.
 3. The cross-section of each proposed street, showing the width of pavement, the location and width of sidewalks, and the location and size of utility mains.
- H. Inspection - Prior to starting any construction, arrangements shall be made for inspection of work to ensure compliance with plans and specifications approved by the WPWD or, when appropriate, the Hamilton County Highway Department.
- I. All construction must be approved by the WPWD and notice of construction must be given to the WPWD, or duly authorized representative, 48 hours prior to beginning work.

- J. Allowable Modifications - Where unusual or exceptional factors or conditions exist, the WPWD may allow minor modifications of any provision of this Section. When such modifications are allowed, a detailed written statement of the reasons for such modifications shall be attached to all copies of construction plans.

PART 2 - PRODUCT

Not Applicable

PART 3 - EXECUTION

Not Applicable

PART 4 – FIGURES

Not Applicable

END OF SECTION 02502